

PATENT COÖPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 03TK 0480WOP	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2004/009848	International filing date (day/month/year) 03/09/2004	(Earliest) Priority Date (day/month/year) 04/09/2003
Applicant DEUTSCHE TELEKOM AG		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/009848

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04B10/18

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 583 903 B1 (WAY DAVID G ET AL) 24 June 2003 (2003-06-24) column 2, line 33 - line 50 column 7, line 65 - column 8, line 35 column 10, line 1 - line 32 column 15, line 37 - column 18, line 47	1-3, 5-9, 12-14, 16
Y	DJUPSJÖBACKA A.: "Calculation of Signal Outage due to Polarization Mode Dispersion" IEE PHOTONICS TECHNOLOGY LETTERS, vol. 13, no. 7, July 2001 (2001-07), pages 660-662, XP002315789 the whole document ----- -/--	1-3, 5-9, 12-14, 16

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

31 January 2005

Date of mailing of the international search report

17/02/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	EP 1 376 907 A1 (ADAPTIF PHOTONICS GMBH) 2 January 2004 (2004-01-02) paragraph '0005! - paragraph '0015! paragraph '0019! - paragraph '0025! paragraph '0029! - paragraph '0032! figure 1	1-9, 12-14, 16
Y	US 2002/131129 A1 (MAO XIAOPING CHARLES) 19 September 2002 (2002-09-19) paragraph '0006! - paragraph '0008! paragraph '0010! - paragraph '0017! paragraph '0023! paragraph '0031! - paragraph '0045! claim 1	1, 3, 5-9, 12-14, 16
Y	SUNNERUD H ET AL: "Outage probabilities in PMD compensated transmission systems" ECOC ' 01, vol. 2, 30 September 2001 (2001-09-30), pages 204-205, XP010582631 the whole document	1, 3, 5-9, 12-14, 16
A	EP 0 578 380 A1 (AMERICAN TELEPHONE AND TELEGRAPH COMPANY; AT&T CORP) 12 January 1994 (1994-01-12) column 3, line 56 - column 7, line 51	1-16
A	BORODITSKY M ET AL: "IN-SERVICE MEASUREMENTS OF POLARIZATION-MODE DISPERSION AND CORRELATION TO BIT-ERROR RATE" IEEE PHOTONICS TECHNOLOGY LETTERS, IEEE INC. NEW YORK, US, vol. 15, no. 4, April 2003 (2003-04), pages 572-574, XP001175228 ISSN: 1041-1135 the whole document	1-16

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/009848

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6583903	B1	24-06-2003	AU 4332501 A 12-09-2001
			CA 2404204 A1 07-09-2001
			EP 1269661 A1 02-01-2003
			JP 2003526255 T 02-09-2003
			WO 0165733 A1 07-09-2001
EP 1376907	A1	02-01-2004	NONE
US 2002131129	A1	19-09-2002	US 6396606 B1 28-05-2002
EP 0578380	A1	12-01-1994	US 5311346 A 10-05-1994
			DE 69326105 D1 30-09-1999
			DE 69326105 T2 27-04-2000
			JP 3014244 B2 28-02-2000
			JP 6061948 A 04-03-1994